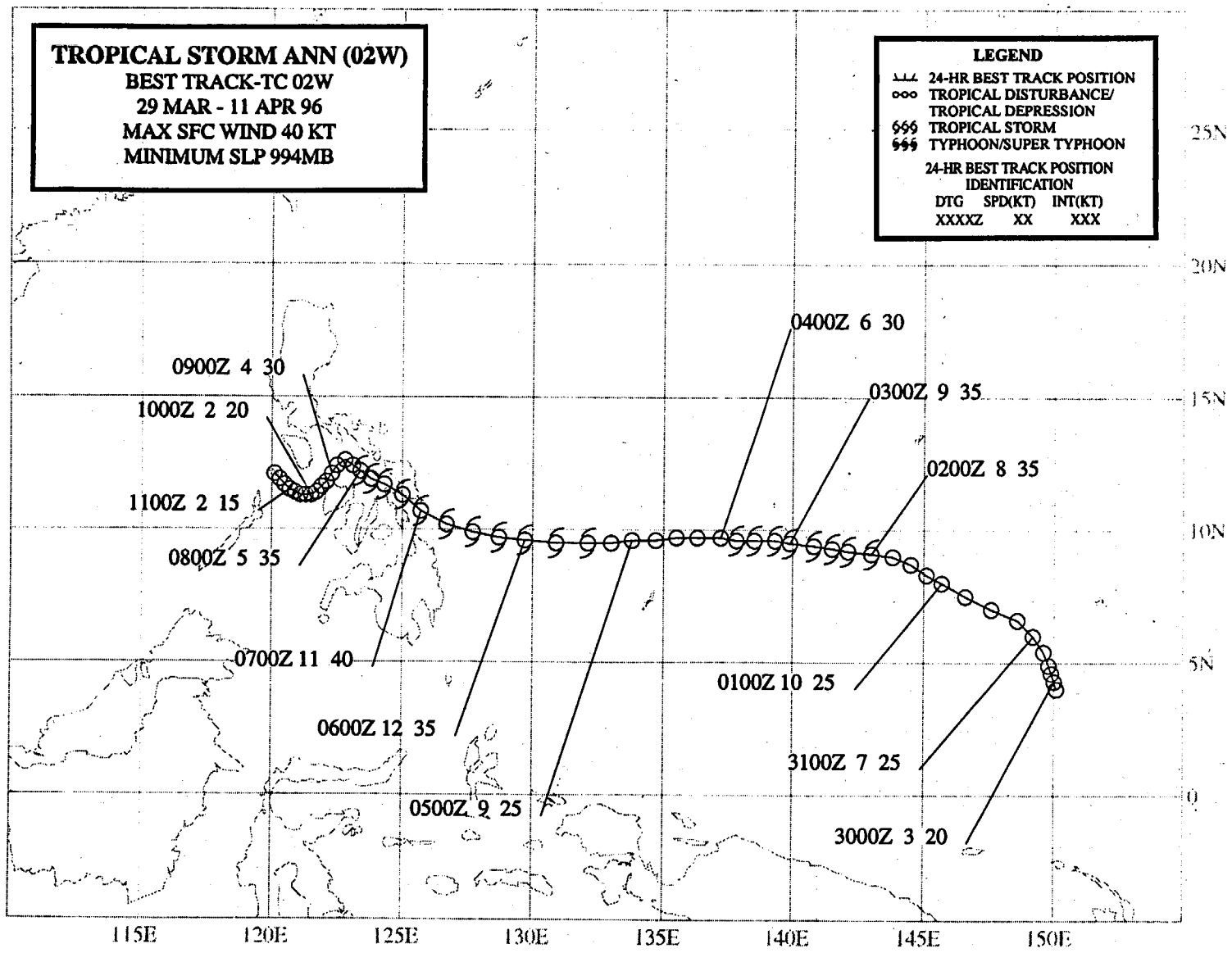
TROPICAL STORM ANN (02W)
BEST TRACK-TC 02W
29 MAR - 11 APR 96
MAX SFC WIND 40 KT
MINIMUM SLP 994MB
LEGEND
24-HR BEST TRACK POSITION
TROPICAL DISTURBANCE/ TROPICAL DEPRESSION
TROPICAL STORM
TYPHOON/SUPER TYPHOON
24-HR BEST TRACK POSITION IDENTIFICATION
DTG SPD(KT) INT(KT)
XXXXZ XX XXX
0900Z 4 30
1000Z 2 20
1100Z 2 15
0800Z 5 35
0700Z 11 40
0600Z 12 35
0500Z 9 25
0400Z 6 30
0300Z 9 35
0200Z 8 35
0100Z 10 25
3100Z 7 25
3000Z 3 20
25N
20N
15N
10N
5N
0
115E
120E
125E
130E
135E
140E
145E
150E

TROPICAL STORM ANN (02W)

I. HIGHLIGHTS

The first named TC of 1996 in the WNP, Ann formed in the Eastern Caroline Islands. While moving westward, Ann had two peaks of intensity, one while southwest of Guam, and the other as it went ashore in the Philippines. Deep convection associated with Ann deposited as much as five inches of rain in 24 hours on parts of Guam — the value of the monthly average rainfall for this dry-season month.

II. TRACK AND INTENSITY

The tropical disturbance that became Ann was first mentioned on the 280600Z March Significant Tropical Weather Advisory. Comments on this advisory included:

" ... An area of convection is located [in the Caroline Island group]. The area is located in a near equatorial trough with strong easterly trades to the north, while animated visible satellite imagery shows winds with a weak westerly component between the trough and the equator ..."

This disturbance moved steadily northwestward and fluctuations in the amount and organization of its deep convection prompted the JTWC to issue three Tropical Cyclone Formation Alerts (TCFA) prior to the first warning. The first TCFA was issued valid at 302000Z March when its deep convection became better organized. The second TCFA was issued, valid at 312000Z, when the disturbance failed to become better organized, but it was determined that conditions were still favorable for intensification. A third TCFA followed, valid at 012000Z April.

The first warning on Tropical Depression (TD) 02W was released, valid at 020000Z, when microwave imagery defined the low-level circulation and indicated the cyclone possessed wind speeds of 25 kt (13 m/sec). TD 02W was upgraded to Tropical Storm Ann 24 hours later based upon intensity estimates of 35 kt (18 m/sec) from both conventional satellite (i.e., infrared and visible) and microwave imagery. Ann was downgraded to a tropical depression at 040000Z when it became less organized in satellite imagery. A final warning was issued at 041200Z when it was thought that Ann was dissipating over water. The system was soon regenerated to TD 02W on the warning valid at 050000Z when the organization of its deep convection improved (Figure 3-02-1). On the warning valid at 050600Z, TD 02W was once again upgraded to Tropical Storm Ann. Traveling almost due westward along 10°N, Ann remained at minimal tropical-storm intensity until just before it passed through the Philippine archipelago where, at 061800Z, it reached its peak intensity of 40 kt (21 m/sec). Entering the central Philippines, Ann slowed its forward speed and dissipated as a significant tropical cyclone before it could cross into the South China Sea. The final warning was issued valid at 091200Z.

III. DISCUSSION

a. *Position inaccuracies*

During the five day period 010000Z through 060000Z April, the warning position (based primarily on satellite fixes) was displaced 90 to 120 nm (165 to 220 km) to the north of the final best track. The final best track for this period was placed further to the south after a careful re-examination of the synoptic data, coupled with a re-evaluation of the satellite imagery. It is not uncommon for the working best track of poorly defined, westward moving TCs at low latitude to be relocated southward in a final analysis (see the summary of Tropical Storm 35W).

b. *Ann's southern twin?*

As Ann moved westward toward the Philippines along 10°N, a Southern Hemisphere TC — Olivia (25S) — moved westward in near symmetry along 10°S (Figure 3-02-1). Although Ann and Olivia (25S) did not form as classical TC twins as described by Lander (1990), they were, for a short period, situated in near symmetry with respect to the equator as they both moved to the west along their respective near-equatorial trough axes. Ann later dissipated over the Philippines while Olivia recurved in the South Indian Ocean.

IV. IMPACT

No reports of damage or injuries were received. On the positive side, the peripheral rainbands of Ann contributed some much-needed dry-season rainfall to parts of the island of Guam.

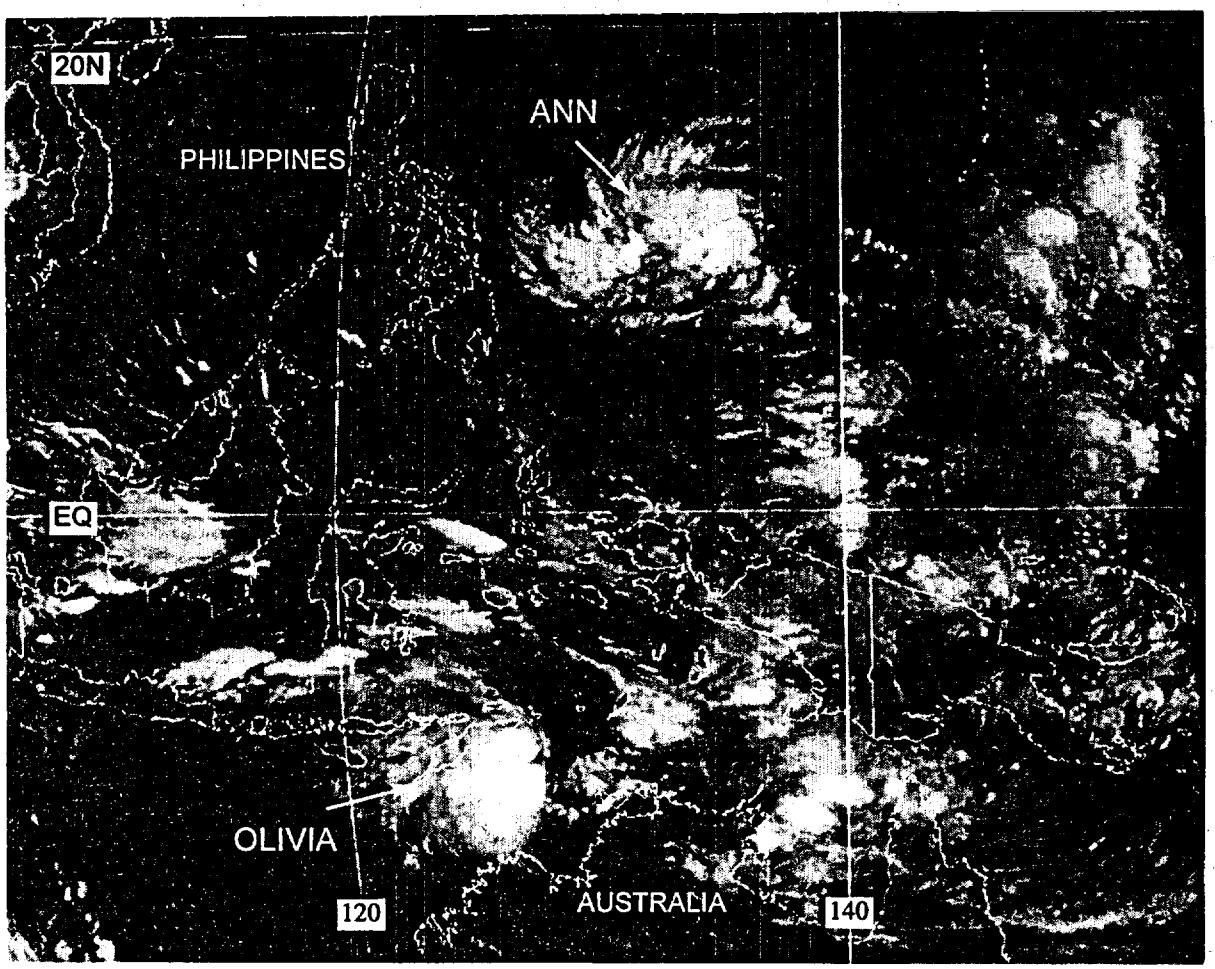

Figure 3-02-1 Tropical Storm Ann moves westward toward the Philippines in near symmetry with the westward moving TC Olivia (25S) (042224Z April infrared GMS imagery).